<u>IN THE CLAIMS</u>

The following is a complete list of the claims now pending; this listing replaces all earlier versions and listings of the claims.

1. (Currently Amended) A method of classifying a digital image, said method comprising the steps of:

segmenting ~~said~~ the digital image into substantially homogeneous regions;

processing ~~said~~ the regions to provide a region adjacency graph for the digital image, ~~said~~ the region adjacency graph representing <u>spatial adjaceny</u> ~~adjacencies~~ between ~~said~~ the regions, <u>wherein at least one of the regions of the region adjacency graph is associated with at least one of a plurality of predetermined semantic labels</u>;

~~analysing said~~ <u>analyzing the</u> region adjacency graph ~~for~~ <u>to identify</u> predetermined patterns of <u>the semantic labels associated with the</u> regions; and

~~classifying said digital image as~~ <u>assigning</u> one of a plurality of predetermined stereotypes <u>to the digital image</u> according to each identified pattern <u>of the semantic labels associated with the regions, such that the assigned stereotype represents a classification of the digital image</u>.

2. (Cancelled)

3. (Currently Amended) The method according to claim 1, wherein ~~said~~ <u>the</u> digital image is classified on the basis of a size of one or more regions of ~~said~~ <u>the</u> digital image.

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4. ~~(Currently Amended)~~ ~~The method according to claim 3, wherein~~ ~~said~~ the digital image is classified on the basis of an adjacency of ~~said~~ the regions.

5. (Currently Amended) The method according to claim 1, wherein ~~said~~ the digital image is classified on the basis of semantic label content of ~~said~~ the region adjacency graph.

6. (Currently Amended) The method according to claim 1, wherein ~~said~~ the digital image is classified on the basis of a mean ~~colour~~ color of one or more regions of ~~said~~ the digital image.

7. (Currently Amended) The method according to claim 1, wherein ~~said~~ the plurality of stereotypes are stored in an association lookup table.

8. (Currently Amended) The method according to claim 1, wherein ~~said~~ the stereotypes are represented in a hierarchal arrangement.

9. (Currently Amended) The method according to claim 7, wherein each of ~~said~~ the stereotypes has a hierarchical path.

10. (Currently Amended) The method according to claim 1, wherein ~~said~~ the region adjacency graph is provided by ~~analysing~~ analyzing contextual data associated with one or more regions of ~~said~~ the digital image.

~~11.   (Currently Amended)~~ ~~The method according to claim 10, wherein~~ ~~said~~ the contextual data comprises information generated by one or more separate sources of ~~said~~ the information.

12.   (Currently Amended) The ~~method~~ according to claim 11, wherein a corresponding portion of ~~said~~ the contextual data is obtained from a temporal region of interest for each source of ~~said~~ the information.

13.   (Currently Amended) The method according to claim ~~12~~ 1, further comprising the step of providing metadata associated with ~~said~~ the digital image, wherein ~~said~~ the metadata includes ~~said~~ the stereotypes of ~~said~~ the digital image.

14.   (Currently Amended) The method according to claim 13, wherein ~~said~~ the metadata includes a hierarchical path associated with ~~said~~ the respective stereotype of each digital image.

15.   (Currently Amended) The method according to claim 14, wherein ~~said~~ the hierarchical path is stored with a respective stereotype as a metadata object which is associated with a respective image object.

16.   (Currently Amended) The method according to claim 14, wherein ~~said~~ the hierarchical path is stored as a ~~referenced~~ lookup table.

17. (Currently Amended) The method according to claim 1, wherein ~~said~~ the digital image is stored in a database of digital images and wherein ~~said~~ the classification can be used to retrieve ~~said~~ the digital image from ~~said~~ the database.

18. (Currently Amended) An apparatus for classifying a digital image, said apparatus comprising:

segmenting means for segmenting ~~said~~ the image into substantially homogeneous regions;

processing means for processing ~~said~~ the regions to provide a region adjacency graph for the digital image, ~~said~~ the region adjacency graph representing ~~adjacencies~~ spatial adjacency between ~~said~~ the regions, wherein at least one of the regions of the region adjacency graph is associated with at least one of a plurality of predetermined semantic labels;

~~analysing~~ analyzing means for ~~analysing~~ analyzing ~~said~~ the region adjacency graph ~~for~~ to identify predetermined patterns of the semantic labels associated with the regions; and

~~classification~~ assigning means for ~~classifying said digital image as~~ assigning one of a plurality of predetermined stereotypes to the digital image according to each identified pattern of the semantic labels associated with the regions, such that the assigned stereotype represents a classification of the digital image.

19. (Cancelled)

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20. (Currently Amended) The apparatus according to claim 18, wherein ~~said~~ the digital image is classified on the basis of a size of one or more regions of ~~said~~ the digital image.

21. (Currently Amended) The apparatus according to claim 20, wherein ~~said~~ the digital image is classified on the basis of an adjacency of ~~said~~ the regions.

22. (Currently Amended) The apparatus according to claim 18, wherein ~~said~~ the digital image is classified on the basis of semantic label content of ~~said~~ the region adjacency graph.

23. (Currently Amended) The apparatus according to claim 18, wherein ~~said~~ the digital image is classified on the basis of a mean ~~colour~~ color of one or more regions of ~~said~~ the digital image.

24. (Currently Amended) The apparatus according to claim 18, wherein ~~said~~ the plurality of stereotypes are stored in an association lookup table.

25. (Currently Amended) The apparatus according to claim 18, wherein ~~said~~ the stereotypes are represented in a hierarchal arrangement.

26. (Currently Amended) The apparatus according to claim 24, wherein each of ~~said~~ the stereotypes has a hierarchical path.

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27. ~~(Currently Amended) The apparatus according to claim 18, wherein said the region adjacency~~ graph is provided by ~~analysing~~ analyzing contextual data associated with one or more regions of ~~said~~ the digital image.

28. (Currently Amended) The apparatus according to claim 27, wherein ~~said~~ the contextual data comprises information generated by one or more separate sources of ~~said~~ the information.

29. (Currently Amended) The apparatus according to claim 28, wherein a corresponding portion of ~~said~~ the contextual data is obtained from a temporal region of interest for each source of ~~said~~ the information.

30. (Currently Amended) The apparatus according to claim 18, further comprising metadata providing means for providing metadata associated with each digital image, wherein ~~said~~ the metadata includes ~~said~~ the stereotypes of each digital image.

31. (Currently Amended) The apparatus according to claim 30, wherein ~~said~~ the metadata includes a hierarchical path associated with ~~said~~ the respective stereotypes of each digital image.

32. (Currently Amended) The apparatus according to claim 31, wherein ~~said~~ the hierarchical path is stored with a respective stereotype as a metadata object which is associated with a respective image object.

33.   (Currently Amended) The apparatus according to claim 31, wherein ~~said~~ the hierarchical path is stored as a referenced lookup table.

34.   (Currently Amended) The apparatus according to claim 18, wherein ~~said~~ the digital image is stored in a database of digital images and wherein ~~said~~ the classification can be used to retrieve ~~said~~ the digital image from ~~said~~ the database.

35.   (Currently Amended) A computer program product comprising a computer readable medium having a computer program recorded for classifying a digital image, said computer program product comprising:

a segmenting module, for segmenting ~~said~~ the digital image into substantially homogeneous regions;

a processing module, for processing ~~said~~ the regions to provide a region adjacency graph for the digital image, ~~said~~ the region adjacency graph representing ~~adjacencies~~ spatial adjacency between ~~said~~ the regions, wherein at least one of the regions of the region adjacency graph is associated with at least one of a plurality of predetermined semantic labels;

~~analysing~~ an analyzing module, for ~~analysing said~~ analyzing the region adjacency graph ~~for~~ to identify predetermined patterns of the semantic labels associated with the regions; and

~~classification~~ an assigning module, for ~~classifying said digital image as~~ assigning one of a plurality of predetermined stereotypes to the digital image according to each identified pattern of the semantic labels associated with the regions such that the assigned stereotype represents a classification of the digital image.

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36. (Cancelled)

37. (Currently Amended) The computer program product according to claim 35, wherein ~~said~~ the digital image is classified on the basis of a size of one or more regions of ~~said~~ the digital image.

38. (Currently Amended) The computer program product according to claim 37, wherein ~~said~~ the digital image is classified on the basis of an adjacency of ~~said~~ the regions.

39. (Currently Amended) The computer program product according to claim 35, wherein ~~said~~ the digital image is classified on the basis of semantic label content of ~~said~~ the region adjacency graph.

40. (Currently Amended) The computer program product according to claim 35, wherein ~~said~~ the digital image is classified on the basis of a mean ~~colour~~ color of one or more regions of ~~said~~ the digital image.

41. (Currently Amended) The computer program product according to claim 35, wherein ~~said~~ the plurality of stereotypes are stored in an association lookup table.

42. (Currently Amended) The computer program product according to claim 35, wherein ~~said~~ the stereotypes are represented in a hierarchal arrangement.

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43. (Currently Amended) The computer program product according to claim 42 41, wherein each of said the stereotypes has a hierarchical path.

44. (Currently Amended) The computer program product according to claim 43 35, wherein said the region adjacency graph is provided by analysing analyzing contextual data associated with one or more regions of said the digital image.

45. (Currently Amended) The computer program product according to claim 44, wherein said the contextual data comprises information generated by one or more separate sources of said the information.

46. (Currently Amended) The computer program product according to claim 45, wherein a corresponding portion of said the contextual data is obtained from a temporal region of interest for each source of said the information.

47. (Currently Amended) The computer program product according to claim 46 35 further comprising a metadata providing module for providing metadata associated with each digital image, wherein said the metadata includes said the stereotypes of each digital image.

48. (Currently Amended) The computer program product according to claim 47, wherein said the metadata includes a hierarchical path associated with said the respective stereotype of each digital image.

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49. (Currently Amended) The computer program product according to claim 48, wherein ~~said~~ the hierarchical path is stored with a respective stereotype as a metadata object which is associated with a respective image object.

50. (Currently Amended) The computer program product according to china 48, wherein ~~said~~ the hierarchical path is stored as a referenced lookup table.

51. (Currently Amended) The computer program product according to claim ~~50~~ 35, wherein ~~said~~ the digital image is stored in a database of digital images and wherein ~~said~~ the classification can be used to retrieve ~~said~~ the digital image from ~~said~~ the database.

52. (Currently Amended) A method of classifying a digital image signal, said method comprising the steps of:

segmenting ~~said~~ the image into substantially homogeneous regions;

processing ~~said~~ the regions to provide a labelled region adjacency graph for the digital image, the region adjacency graph ~~comprising at least one semantic label and~~ representing ~~at least part of the digital image signal~~ spatial adjacency between ~~said~~ the regions, wherein at least one of the regions of the region adjacency graph is associated with at least one of a plurality of predetermined semantic labels;

providing a plurality of predetermined stereotype classifications, ~~for~~ each of the stereotype classifications being associated with at least one ~~a plurality of~~ predetermined pattern ~~patterns~~, wherein each ~~said~~ the pattern comprises:

~~(i) a set of~~ labelled regions; or

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(ii) a set of labelled regions and corresponding adjacency

information;

~~analysing said~~ analyzing the labelled region adjacency graph ~~for~~ to identify the presence of ~~predetermined~~ patterns of labelled regions; and

for each pattern of labelled regions identified as matching at least one of the predetermined patterns, selecting from ~~said~~ the plurality of ~~classifications a~~ stereotype ~~classification~~ classifications based on the matching; and

assigning the selected stereotype classification to the digital image as a classification ~~for~~ of the digital image.

53.   (Cancelled)

54.   (Currently Amended) The method according to claim 52, wherein ~~said~~ the digital image is classified on the basis of semantic label content of ~~said~~ the region adjacency graph.

55.   (Previously Amended) The method according to claim 52, wherein a stereotype is assigned to the digital image signal on the basis of the adjacency of a set of regions with specified labels in the labelled region adjacency graph.

56.   (Previously Amended) The method according to claim 52, wherein a stereotype is assigned to the digital image signal on the basis of the size of one or more regions with a specified label in the labelled region adjacency graph.

57. ~~(Currently Amended)~~ The method according to claim 52, ~~wherein a~~ stereotype is assigned to the digital image signal on the basis of a label which represents ~~the~~ a mean ~~colour~~ color of one or more regions in the labelled region adjacency graph.

58. (Currently Amended) The method according to claim 52, wherein a stereotype is assigned to the digital image signal on the basis of a label which represents ~~the~~ a mean ~~colour~~ color texture of one or more regions in the labelled region adjacency graph.

59. (Currently Amended) The method according to claim 52, wherein ~~said~~ the plurality of stereotypes are stored in an association lookup table.

60. (Currently Amended) The method according to claim 52, wherein ~~said~~ the stereotypes are represented in an hierarchical arrangement.

61. (Currently Amended) The method according to claim 60, wherein each of ~~said~~ the stereotypes has a hierarchical path.

62. (Currently Amended) The method according to claims 52, wherein each of ~~said~~ the stereotypes is represented by one of a plurality of icons.

63. (Currently Amended) The method according to claims 52, where ~~said~~ the digital ~~image is stored in a database~~ of digital images and wherein ~~said~~ the digital image ~~can~~ be retrieved from ~~said~~ the database using a ~~keyword~~ representing a stereotype.

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64. (Currently Amended) The method according to claim 52, where said the digital image is stored in a database of digital images and wherein said the digital image can be retrieved from said the database using an icon representing a stereotype.

65. (Currently Amended) The method according to claim 52, where said the digital image is stored in a database of digital images and wherein said the digital image can be retrieved from said the database using either a keyword or icon representing a generalisation generalization, or broader version of a stereotype.

66. (Currently Amended) An apparatus for classifying a digital image signal, said apparatus comprising:

segmenting means for segmenting said the digital image into substantially homogeneous regions;

processing means for processing said the regions to provide a labelled region adjacency graph comprising at least one semantic label and representing for at least part of the digital signal, wherein at least one of the regions of the region adjacency graph being associated with at least one of a plurality of predetermined semantic labels;

classification providing means for providing a plurality of predetermined stereotype classifications, each of the stereotype classifications being associated with at least one predetermined for each of a plurality of patterns pattern, wherein each said pattern comprises:

(i) a set of labelled regions; or

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(ii) a set of labelled regions and corresponding adjacency information; and

~~analysing~~ analyzing means for ~~analysing said~~ analyzing the labelled region adjacency graph ~~for~~ to identify the presence of ~~predetermined~~ patterns of labelled regions, wherein for each pattern of labelled regions identified as matching at least one of the predetermined patterns, ~~said~~ the classification providing means ~~provides~~ assigns ~~a~~ one of the predetermined stereotype classifications to the digital image as a classification ~~for~~ of the digital image ~~selecting from said plurality of classification~~.

67.   (Cancelled)

68.   (Previously Amended) The apparatus according to claim 66, wherein a stereotype is assigned to the digital image signal on the basis of the semantic label consent of one or more regions in the labelled region adjacency graph.

69.   (Previously Amended) The apparatus according to claim 66, wherein a stereotype is assigned to the digital image signal on the basis of the adjacency of a set of regions with specified labels in the labelled region adjacency graph.

70.   (Previously Amended) The apparatus according to claim 66, wherein a stereotype is assigned to the digital image signal on the basis of the size of one or more regions with a specified label in the labelled region adjacency graph.

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71. (Currently Amended) The apparatus according to claim 66, wherein a stereotype is assigned to the digital image signal on the basis of a label which represents ~~the~~ a mean ~~colour~~ color of one or more regions in the labelled region adjacency graph.

72. (Currently Amended) The apparatus according to claim 66, wherein a stereotype is assigned to the digital image signal on the basis of a label which represents ~~the~~ a mean ~~colour~~ color texture of one or more regions in the labelled region adjacency graph.

73. (Currently Amended) The apparatus according to claim 66, wherein ~~said~~ the plurality of stereotypes are stored in an association lookup table.

74. (Currently Amended) The apparatus according to claim 66, wherein ~~said~~ the stereotypes arc represented in an hierarchical arrangement.

75. (Currently Amended) The apparatus according to claim 74, wherein each of ~~said~~ the stereotypes has a hierarchical path.

76. (Currently Amended) The apparatus according to claim 66, wherein each of ~~said~~ the stereotypes is represented by one of a plurality of icons.

77. (Currently Amended) The apparatus according to claim 66, where ~~said~~ the digital image is stored in a database of digital images and wherein ~~said~~ the digital image can be retrieved from ~~said~~ the database using a keyword representing a stereotype.

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78. (Currently Amended) The apparatus according to claim 66, where ~~said~~ the digital image is stored in a database of digital images and wherein ~~said~~ the digital image can be retrieved from ~~said~~ the database using a icon representing a stereotype.

79. (Currently Amended) The apparatus according to claim 66, where ~~said~~ the digital image is stored in a database of digital images and wherein ~~said~~ the image can be retrieved from ~~said~~ the database using either a keyword or icon representing a ~~generalisation~~ generalization, or broader version, of a stereotype.

80. (Currently Amended) A computer program product comprising a computer readable medium having a computer program recorded for classifying a digital image signal, said computer program product comprising:

a segmenting module for segmenting ~~said~~ the digital image into substantially homogeneous regions;

a processing module for processing ~~said~~ the regions to provide a labelled region adjacency graph ~~comprising at least one semantic label and representing at least part of the digital image signal,~~ the region adjacency graph representing spatial adjacency between the regions, wherein at least one of the regions of the region adjacency graph is associated with at least one of a plurality of predetermined semantic labels;

a classification providing module for providing a plurality of predetermined stereotype classifications, ~~for~~ each of ~~a~~ the stereotype classifications being associated with at least one ~~plurality of~~ predetermined patterns, wherein each ~~said~~ pattern comprises:

(i) a set of labelled regions; or

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(ii) a set of labelled regions and corresponding adjacency information; and

~~analysing~~ an analyzing module for ~~analysing said~~ analyzing the labelled region adjacency graph ~~for~~ to identify the presence of ~~predetermined~~ patterns of labelled regions, wherein for each pattern of labelled regions identified as matching at least one of the predetermined patterns, ~~said~~ the classification providing means ~~provides~~ assigns one of the predetermined ~~a~~ stereotype classification~~s~~ to the digital image as a ~~for~~ classification of the digital image ~~selecting from said plurality of stereotype classifications~~.

81.   (Cancelled)

82.   (Previously Amended) The computer program product according to claim 80, wherein a stereotype is assigned to the digital image signal on the basis of the semantic label content of one or more regions in the labelled region adjacency graph.

83.   (Previously Amended) The computer program product according to claim 80, wherein a stereotype is assigned to the digital image signal on the basis of the adjacency of a set of regions with specified labels in the labelled region adjacency graph.

84.   (Previously Amended) The computer program product according to claim 80, wherein a stereotype is assigned to the digital image signal on the basis of the size of one or more regions with a specified label in the labelled region adjacency graph.

85.   (Currently Amended) The computer program product according to claim 80, wherein a stereotype is assigned to the digital image signal on the basis of a label which represents ~~the~~ a mean ~~colour~~ color of one or more regions in the labelled region adjacency graph.

86.   (Currently Amended) The computer program product according to claim 80, wherein a stereotype is assigned to the digital image signal on the basis of a label which represents ~~the~~ a mean ~~colour~~ color texture of one or more regions in the labelled region adjacency graph.

87.   (Currently Amended) The computer program product according to claim 80, wherein ~~said~~ the plurality of stereotypes are stored in an association lookup table.

88.   (Currently Amended) The computer program product according to claim 80, wherein~~,~~ ~~said~~ the stereotypes are represented in an hierarchical arrangement.

89.   (Currently Amended) The computer program product according to claim 88, wherein each of ~~said~~ the stereotypes has a hierarchical path.

90.   (Currently Amended) The computer program product according to claim 80, wherein each of ~~said~~ the stereotypes is represented by one of ~~a plurality of icons~~.

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91. (Currently Amended) The computer program product according to claim 80, wherein ~~said~~ the digital image is stored in a database of digital images and wherein ~~said~~ the digital image can be retrieved using a keyword representing a stereotype.

92. (Currently Amended) The computer program product according to claim 80, wherein ~~said~~ the digital image is stored in a database of digital images and wherein ~~said~~ the digital image can be retrieved using a icon representing a stereotype.

93. (Currently Amended) The computer program product according to claim 80, wherein ~~said~~ the digital image is stored in a database of digital images and wherein ~~said~~ the digital image can be retrieved from ~~said~~ the database using either a keyword or icon representing a ~~generalisation~~ generalization, or broader version, of a stereotype.